

Variable initialization with same variable

We can initialize a variable with same variable name, this assignment is valid.

In this case the variable value is replaced with same value.

Ex:

```
int a = 10;  
a = a ;
```

Assigning a static variable with a local variable or parameter

If a local variable or parameter is created with the static variable name, we must use class name in assigning static variable with that local variable or parameter. Else as per the local preference algorithm the modification is stored in the local variable but not in static variable.

Find out, is static variable modified in below programs

```
class Example{  
    static int a;  
  
    static void m1(int x){  
        a = x;  
        System.out.println(a);  
    }  
  
    public static void main(String[] args){  
        System.out.println(a);  
        m1(50);  
        System.out.println(a);  
    }  
}
```

```
class Example{  
    static int a;  
  
    static void m1(int a){  
        a = a;  
        System.out.println(a);  
    }  
  
    public static void main(String[] args){  
        System.out.println(a);  
        m1(50);  
        System.out.println(a);  
    }  
}
```

```
class Example{  
    static int a;  
    static void m1(int a){  
        Example.a = a;  
        System.out.println(a);  
    }  
  
    public static void main(String[] args){  
        System.out.println(a);  
        m1(50);  
        System.out.println(a);  
    }  
}
```

```
class Example{  
    static int a;  
    static void m1(int a){  
        a = Example.a;  
        System.out.println(a);  
    }  
  
    public static void main(String[] args){  
        System.out.println(a);  
        m1(50);  
        System.out.println(a);  
    }  
}
```

What is the output from the below program?

```

Test24_SMSVInitVS_TC5.java
1 class Example {
2     static int a;
3     static int b;
4     static void m10{
5         a = 10; b = 20;
6     }
7     static void m2(int x , int y){
8         a = x;
9         b = y;
10    }
11    static void m3(int a , int b){
12        a = a;
13        b = b;
14    }
15    static void m4(int a , int b){
16        Example.a = a;
17        Example.b = b;
18    }

```



```

Test24_SMSVInitVS_TC5.java
19 public static void main(String[] args) {
20     System.out.println(a+"..."+b);
21
22     m10;
23     System.out.println(a+"..."+b);
24
25     m2(30, 40);
26     System.out.println(a+"..."+b);
27
28     m3(50, 60);
29     System.out.println(a+"..."+b);
30
31     m4(70, 80);
32     System.out.println(a+"..."+b);
33
34 }
35
36

```

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```

Test24_SMSVInitVS_TC5.java
1 class Example {
2     static int a;           a[0] 10 20 70
3     static int b;           b[0] 20 40 80
4     static void m10{         ←
5         a = 10; b = 20;    ←
6     }
7     static void m2(int x , int y){   ←
8         a = x;             x[30] ←
9         b = y;             y[40] ←
10    }
11    static void m3(int a , int b){   ←
12        a = a;             a[50] ←
13        b = b;             b[60] ←
14    }
15    static void m4(int a , int b){   ←
16        Example.a = a;      a[70] ←
17        Example.b = b;      b[80] ←
18    }

```



```

Test24_SMSVInitVS_TC5.java
19 public static void main(String[] args) {           ←
20     System.out.println(a+"..."+b); 0...0           ←
21
22     m10;                                         ←
23     System.out.println(a+"..."+b); 10...20          ←
24
25     m2(30, 40);                                ←
26     System.out.println(a+"..."+b); 30...40          ←
27
28     m3(50, 60);                                ←
29     System.out.println(a+"..."+b); 30...40          ←
30
31     m4(70, 80);                                ←
32     System.out.println(a+"..."+b); 70...80          ←
33
34 }
35
36

```

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What is the output from the below program?

```
class Example
{
    int x = 10;
    int y = 20;

    void m1(int a, int b)
    {
        x = a;
        y = b;
    }

    void m2(int x, int y)
    {
        x = x;
        y = y;
    }

    void m3(int x, int y)
    {
        this.x = x;
        this.y = y;
    }
}

public static void main(String[] args)
{
    Example e1 = new Example();

    System.out.println(e1.x + " ... " + e1.y);

    e1.m1(30, 40);
    System.out.println(e1.x + " ... " + e1.y);

    e1.m2(50, 60);
    System.out.println(e1.x + " ... " + e1.y);

    e1.m3(70, 80);
    System.out.println(e1.x + " ... " + e1.y);
}
```

